



May 30, 2007

Charles L.A. Terreni
Chief Clerk and Administrator
South Carolina Public Service Commission
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.
Power Plant Performance Report (April 2007)
Docket No. 2006-224-E

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of April 2007.

Sincerely,

s/ Len S. Anthony

Len S. Anthony
Deputy General Counsel – Regulatory Affairs

LSA/dhs
Enclosures
45612

c: John Flitter (ORS)

April 2007

The following units had no off-line outages during the month of April:

Harris Unit 1

Mayo Unit 1

Roxboro Unit 4

Brunswick Unit 1

Full Forced Outage

- A. Duration: The unit was taken out of service at 15:28 on April 1, and was returned to service at 17:25 on April 6, a duration of 121 hours and 57 minutes.
- B. Cause: Technical Specification due to Inoperable Emergency Diesel Generator
- C. Explanation: During post-maintenance operability testing on Emergency Diesel Generator (EDG) # 4, the generator exhibited unstable power output while synchronized to the grid. This testing was being performed at the conclusion of a planned diesel generator maintenance outage. Technical specifications require that a unit be shut down in the event that an EDG is inoperable for greater than seven days. Therefore, as the EDG maintenance outage (i.e. inoperable) approached seven days in duration, the unit was removed from service.
- D. Corrective Action: Repairs, including work on the governor, were made to EDG # 4 to address issues with unstable power output by the diesel generator. Upon completion of maintenance and testing activities on EDG # 4, the unit was returned to service.

Brunswick Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:05 on March 3, placed on-line at 6:15 on April 18, taken off-line at 9:53 on April 18 for a turbine over speed trip test, and returned to service at 11:15 on April 18, a duration of 1,110 hours and 32 minutes. 415 hours and 37 minutes of the outage occurred in April.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections were carried out. The outage was extended beyond the original plan due to discovery items, additional work scope, and emergent repairs needed to address maintenance on reactor feed pumps.
- D. Corrective Action: Planned outage activities, including refueling, inspections, and maintenance, were completed and the unit was returned to service.

Robinson Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 0:00 on April 7, and remained off-line through the end of the month. The unit was off-line for 576 hours during April.
- B. Cause: Scheduled Refueling Outage
- C. Explanation: The unit was taken out of service for a scheduled refueling outage. In addition to refueling, required maintenance and inspections are being carried out during this outage.
- D. Corrective Action: Planned outage activities were in progress at the end of April.

Roxboro Unit 2

Full Scheduled Outage

- A. Duration: The unit was taken out of service at 23:50 on March 30, and returned to service at 8:35 on April 27, a duration of 656 hours and 45 minutes. 632 hours and 35 minutes of the outage occurred in April.
- B. Cause: Boiler Inspection and Installation of Environmental Modifications
- C. Explanation: The unit was taken out of service for a planned boiler inspection, other inspections, and maintenance. Additionally, the installation of the flue gas desulfurization system was completed.
- D. Corrective Action: Planned outage activities, including boiler inspection, periodic, preventative, and corrective maintenance, were completed. Installation of the flue gas desulfurization system was also completed. Following the completion of planned outage activities, the unit was returned to service.

Roxboro Unit 3

Full Forced Outage

- A. Duration: The unit was taken out of service at 22:42 on April 12, and was returned to service at 22:00 on April 15, a duration of 71 hours and 18 minutes.
- B. Cause: Main Bank Transformer Failure
- C. Explanation: The unit was forced out of service due to the failure of the 3C main bank transformer bushing.
- D. Corrective Action: Maintenance activities, including replacement of the transformer bushing, were performed to correct the failure of the main bank transformer. The unit remained off-line immediately following the transformer repairs to inspect and wash the 3A and 3B air heater baskets.

Full Scheduled Outage

- A. Duration: Upon completion of transformer repairs, the unit remained off-line for a maintenance outage. The maintenance outage began at 22:00 on April 15, and was returned to service at 5:51 on April 17, a duration of 31 hours and 51 minutes.
- B. Cause: 3A and 3B Air Heater Wash
- C. Explanation: After maintenance on the main bank transformer was completed, the unit remained off-line to perform maintenance on the 3A and 3B air heaters. The 3A and 3B air heater baskets were washed and inspected.
- D. Corrective Action: Maintenance activities, including washing of the 3A and 3B air heater baskets, were completed. Once the 3B air heater basket wash was complete, the unit was returned to service with only the 3B boiler in operation.

Roxboro Unit 3

Full Forced Outage

- A. Duration: The unit was taken out of service at 14:22 on April 20, and was returned to service at 10:23 on April 23, a duration of 68 hours and 1 minute.
- B. Cause: Main Bank Transformer Bushing
- C. Explanation: Following the main bank transformer bushing repairs that were completed on April 15, it was observed that the transformer was experiencing temperature irregularities. Therefore, the unit was forced out of service to perform maintenance on the main bank transformer.
- D. Corrective Action: The transformer bushing that had been installed during the April 12 – 15 outage was removed, and a different bushing was used to replace the existing one. Upon completion of repairs to the main bank transformer, the unit was returned to service.

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	938 MW		938 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	549,513 MWH		7,929,519 MWH		2
Capacity Factor	81.37 %		96.50 %		
Equivalent Availability	79.39 %		93.55 %		
Output Factor	97.96 %		101.53 %		
Heat Rate	10,364 BTU/KWH		10,318 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	1,044	0.15	32,996	0.40	4
Full Forced	114,389	16.94	407,202	4.96	5
Partial Forced	23,749	3.52	62,269	0.76	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	675,360		8,216,880		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	937 MW		937 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	255,131 MWH		6,275,292 MWH		2
Capacity Factor	37.82 %		76.45 %		
Equivalent Availability	37.71 %		75.75 %		
Output Factor	89.46 %		97.59 %		
Heat Rate	10,659 BTU/KWH		10,589 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	389,433	57.72	1,271,572	15.49	3
Partial Scheduled	30,810	4.57	131,806	1.61	4
Full Forced	0	0.00	506,464	6.17	5
Partial Forced	0	0.00	61,435	0.75	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	674,640		8,208,120		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	900 MW		900 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	660,878 MWH		7,543,539 MWH		2
Capacity Factor	101.99 %		95.68 %		
Equivalent Availability	100.00 %		94.70 %		
Output Factor	101.99 %		100.96 %		
Heat Rate	10,780 BTU/KWH		10,848 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	332,775	4.22	3
Partial Scheduled	0	0.00	1,063	0.01	4
Full Forced	0	0.00	79,650	1.01	5
Partial Forced	0	0.00	69,653	0.88	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	648,000		7,884,000		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	710 MW		710 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	92,159 MWH		5,996,903 MWH		2
Capacity Factor	18.03 %		96.42 %		
Equivalent Availability	18.79 %		92.55 %		
Output Factor	90.14 %		103.90 %		
Heat Rate	11,150 BTU/KWH		10,766 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	408,960	80.00	408,960	6.58	3
Partial Scheduled	804	0.16	804	0.01	4
Full Forced	0	0.00	38,802	0.62	5
Partial Forced	3,886	0.76	8,667	0.14	6
Economic Dispatch	5,391	1.05	9,775	0.16	7
Possible MWH	511,200		6,219,600		8

* See 'Notes for Nuclear Units' filed with the January 2007 report.

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	741 MW		744 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	460,803 MWH		4,381,720 MWH		2
Capacity Factor	86.37 %		67.50 %		
Equivalent Availability	98.96 %		89.94 %		
Output Factor	86.37 %		72.40 %		
Heat Rate	10,194 BTU/KWH		10,614 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	363,815	5.58	3
Partial Scheduled	5,550	1.04	81,290	1.25	4
Full Forced	0	0.00	75,587	1.16	5
Partial Forced	0	0.00	133,402	2.05	6
Economic Dispatch	67,167	12.59	1,478,871	22.70	7
Possible MWH	533,520		6,514,520		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

** Gross of Power Agency

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	639 MW		660 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	23,722 MWH		4,212,243 MWH		2
Capacity Factor	5.16 %		72.89 %		
Equivalent Availability	7.51 %		84.43 %		
Output Factor	42.47 %		82.46 %		
Heat Rate	11,348 BTU/KWH		9,378 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	404,221	87.86	474,838	8.22	3
Partial Scheduled	21,330	4.64	306,544	5.30	4
Full Forced	0	0.00	96,119	1.66	5
Partial Forced	0	0.00	8,405	0.15	6
Economic Dispatch	10,808	2.35	686,001	11.87	7
Possible MWH	460,080		5,778,680		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of April 2007		Twelve Month Summary		See Notes*
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MDC	705 MW		706 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	299,469 MWH		3,762,177 MWH		2
Capacity Factor	59.00 %		60.80 %		
Equivalent Availability	70.81 %		78.26 %		
Output Factor	77.40 %		74.38 %		
Heat Rate	11,306 BTU/KWH		10,506 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	22,454	4.42	1,031,967	16.68	3
Partial Scheduled	494	0.10	51,717	0.84	4
Full Forced	98,218	19.35	98,218	1.59	5
Partial Forced	27,019	5.32	163,664	2.65	6
Economic Dispatch	59,945	11.81	1,076,967	17.41	7
Possible MWH	507,600		6,187,480		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of April 2007		Twelve Month Summary		See Notes*
	-----		-----		-----
MDC	698 MW		699 MW		1
Period Hours	720 HOURS		8,760 HOURS		
Net Generation	396,733 MWH		4,191,664 MWH		2
Capacity Factor	78.94 %		68.42 %		
Equivalent Availability	97.98 %		96.72 %		
Output Factor	78.94 %		69.03 %		
Heat Rate	10,640 BTU/KWH		10,558 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
	-----	-----	-----	-----	
Full Scheduled	0	0.00	39,728	0.65	3
Partial Scheduled	9,755	1.94	133,899	2.19	4
Full Forced	0	0.00	5,600	0.09	5
Partial Forced	391	0.08	21,471	0.35	6
Economic Dispatch	95,682	19.04	1,733,880	28.30	7
Possible MWH	502,560		6,126,160		8

* See 'Notes for Fossil Units' filed with the January 2007 report.

** Gross of Power Agency

Plant	Unit	Current MW Rating	January 2006 - December 2006	April 2007	January 2007 - April 2007
Asheville	1	197	72.44	0.00	47.33
Asheville	2	186	60.37	91.77	76.68
Cape Fear	5	144	72.32	91.89	79.16
Cape Fear	6	173	65.99	85.60	73.62
Lee	1	77	47.56	53.41	54.08
Lee	2	77	43.52	78.42	63.99
Lee	3	252	60.06	76.45	71.64
Mayo	1	741	67.04	86.37	62.72
Robinson	1	180	78.19	90.73	78.30
Roxboro	1	383	77.79	81.46	78.51
Roxboro	2	639	81.26	5.16	61.01
Roxboro	3	705	59.60	59.00	75.10
Roxboro	4	698	65.20	78.94	71.11
Sutton	1	97	44.30	72.76	58.14
Sutton	2	106	46.43	78.86	65.32
Sutton	3	403	54.54	36.33	59.13
Weatherspoon	1	49	36.15	71.28	59.66
Weatherspoon	2	49	37.40	71.62	56.22
Weatherspoon	3	79	50.52	86.66	74.89
Fossil System Total		5,235	65.25	63.00	67.82
Brunswick	1	938	87.51	81.37	97.81
Brunswick	2	937	89.68	37.82	60.27
Harris	1	900	89.16	101.99	102.81
Robinson Nuclear	2	710	103.59	18.03	83.64
Nuclear System Total		3,485	91.80	62.08	86.12
Total System		8,720	75.80	62.63	75.14

Amended SC Fuel Rule
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor of $\geq 92.5\%$ during the 12 month period under review. For the test period April 1, 2007 through April 30, 2007, actual period to date performance is summarized below:

Period to Date: April 1, 2007 to April 30, 2007

Nuclear System Capacity Factor Calculation (Based on net generation)

A.. Nuclear system actual generation for SCPSC test period	A = 1,557,681 MWH
B. Total number of hours during SCPSC test period	B = 720 hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C = 3,485 MW
D. Reasonable nuclear system reductions (see page 2)	D = 974,579 MWH
E. SC Fuel Case nuclear system capacity factor: $[(A + D) / (B + C)] * 100 =$	100.9%

NOTE:

If Line Item E $> 92.5\%$, presumption of utility's minimum cost of operation.

If Line Item E $< 92.5\%$, utility has burden of proof of reasonable operations.

Amended SC Fuel Rule
Nuclear System Capacity Factor Calculation
Reasonable Nuclear System Reductions
Period to Date: April 1, 2007 to April 30, 2007

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	0	392,521	0	408,960	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	118,719	621	0	0	
Reasonable coast down power reductions (MWH)	0	0	0	6,195	
Reasonable power ascension power reductions (MWH)	20,463	27,100	0	0	
Prudent NRC required testing outages (MWH)	0	0	0	0	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	0	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	139,182	420,242	0	415,155	
Total reasonable outage time exclusions [carry to Page 1, Line D]					974,579